

REMARKS

The Office Action dated June 14, 2007, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-37 are currently pending in the application, of which claims 1, 11, 17-18, and 34-37 are independent claims. Claims 1, 3, 5, 8-11, 13, 15, 17-19, 22, 26, and 31-37 have been amended to more particularly point out and distinctly claim the invention. No new matter has been added, and no new issues have been raised that would require further consideration or search. Claim 1-37 are respectfully submitted for consideration.

With respect to the amendments, it should be noted that the amendments in essence first change the terminology from “entity” to “network element.” Nevertheless, this change does not require further consideration or search, because the entities were already being considered as network elements in the Office Action. Secondly, the amendments clarify that the first and second network elements are separate from each other. This change also does not require further consideration or search, because the entities ought already to have been considered as separate from each other in the Office Action, in view of Applicants’ previous arguments, noted in the Office Action at page 2. The remainder of the amendments are either similar to those discussed above or minor in nature. Accordingly, it should be clear that the amendments to the claims do not raise new issues that require further consideration and/or search.

Claims 1-7, 11-30, and 34-37 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0217142 of Bobde et al.

(“Bobde”) in view of U.S. Patent Application Publication No. 2002/0131395 of Wang (“Wang”). The Office Action took the position that Bobde teaches many of the features of the claims, and cited Wang to remedy certain identified deficiencies of Bobde. Applicants respectfully traverse this rejection.

Claim 1, upon which claims 2-10 depend, is directed to a method including maintaining, in a first network element of a communication system, registration information from a plurality of users. The method also includes maintaining, in a second network element of the communication system, information associated with said plurality of users, wherein the second network element is separate from the first network element and wherein said second network element information is dependent on the registration information. The method further includes sending a subscribe message for an event from the second network element to the first network element, wherein the event is a change in the registration information of at least one of the plurality of users at the first network element. The method additionally includes receiving at the first network element a register message from at least one user, said message changing the registration information of said at least one user. The method also includes sending a notification from the first network element to the second network element in response to the register message, wherein the notification includes information associated with said at least one user.

Claim 11, upon which claims 12-16 depend, is directed to a communication system including a first network element configured to maintain registration information from a plurality of users. The system also includes a second network element configured

to maintain information associated with said plurality of users, wherein the second network element is separate from the first network element and wherein said second network element information is dependent on the registration information. The second network element is configured to send a subscribe message for an event to the first network element. The first network element is configured to receive a register message from at least one user, said register message configured to change the registration information of said at least one user. The event is associated with a change in the registration information of at least one of the plurality of users at the first network element. The first network element is configured to send a notification from the first network element to the second network element in response to the register message. The notification includes information associated with said at least one user.

Claim 17, upon which claims 19-24 depend, is directed to a network element including storage circuitry configured to maintain registration information from a plurality of users. The network element also includes receiving circuitry configured to receive a subscribe message for an event from a second network element, wherein the second network element is separate from the network element and wherein the event is associated with a change in the registration information of at least one of the plurality of users at the network element. The network element further includes receiving circuitry configured to receive a register message from at least one user, said register message configured to change the registration information of said at least one user. The network element additionally includes transmitting circuitry configured to send a notification to

the second network element in response to the register message, wherein the notification includes information associated with said at least one user.

Claim 18, upon which claims 25-33 depend, is directed to a network element including storage circuitry configured to maintain information associated with a plurality of users, wherein said information is dependent on registration information maintained at a second network element, wherein the second network element is separate from the network element. The network element also includes transmitting circuitry configured to send a subscribe message for an event to the second network element, wherein the event is associated with a change in the registration information of at least one of the plurality of users at the second network element. The network element further includes receiving circuitry configured to receive a notification from the second network element, wherein the notification includes information associated with said at least one user.

Claim 34 is directed to a method including maintaining, in a registrar server network element of a communication system, registration information from a plurality of users. The method also includes maintaining, in a presence server network element of the communication system separate from the registrar server network element, information associated with said plurality of users, wherein said presence server network element information is dependent on the registration information. The method further includes sending a subscribe message for an event from the presence server network element to the registrar server network element, wherein the event is a change in the registration information of at least one of the plurality of users at the registrar server network element. The method additionally includes receiving at the registrar server network

element a register message from at least one user, said message changing the registration information of said at least one user. The method also includes sending a notification from the registrar server network element to the presence server network element in response to the register message, wherein the notification includes information associated with said at least one user.

Claim 35 is directed to a communication system including a registrar server network element configured to maintain registration information from a plurality of users. The communication system also includes a presence server network element configured to maintain information associated with said plurality of users, wherein the presence server network element is separate from the registrar service network element and wherein said presence server network element information is dependent on the registration information. The presence server network element is configured to send a subscribe message for an event to the registrar server network element. The registrar server network element is configured to receive a register message from at least one user, said register message configured to change the registration information of said at least one user. The event is associated with a change in the registration information of at least one of the plurality of users at the registrar server network element. The registrar server network element is configured to send a notification from the registrar server network element to the presence server network element in response to the register message. The notification includes information associated with said at least one user.

Claim 36 is directed to a registrar server network element including storage circuitry configured to maintain registration information from a plurality of users. The

registrar server network element also includes receiving circuitry configured to receive a subscribe message for an event from a presence server network element, wherein the presence server network element is separate from the registrar server network element and wherein the event is associated with a change in the registration information of at least one of the plurality of users at the registrar server network element. The registrar server network element further includes receiving circuitry configured to receive a register message from at least one user, said register message configured to change the registration information of said at least one user. The registrar server network element additionally includes transmitting circuitry configured to send a notification to the presence server network element in response to the register message, wherein the notification includes information associated with said at least one user.

Claim 37 is directed to a presence server network element including storage circuitry configured to maintain information associated with a plurality of users, wherein said information is dependent on registration information maintained at a registrar server network element, wherein the registrar server network element is separate from the presence server network element. The presence server network element also includes transmitting circuitry configured to send a subscribe message for an event to the registrar server network element, wherein the event is associated with a change in the registration information of at least one of the plurality of users at the registrar server network element. The presence server network element further includes receiving circuitry configured to receive a notification from the registrar server network element, wherein the notification includes information associated with said at least one user.

Applicants respectfully submit that the combination of Bobde and Wang fails to disclose or suggest all of the features of any of the presently pending claims.

Bobde generally relates to a method and system for supporting the communication of presence information regarding one or more telephony devices. More specifically, Bobde discusses a system for detecting and communicating the presence of one or more computing devices. Bobde also discusses a method and system for aggregating presence information generated by multiple devices associated with a single user. Bobde describes a single server acting as a presence agent and a registration agent.

Claim 1, however, recites both “maintaining, in a first network element of a communication system, registration information from a plurality of users” and “maintaining, in a second network element of the communication system, information associated with said plurality of users, wherein said second entity information is dependent on the registration information.” Because Bobde uses a single server for both a presence agent and a registration agent, Bobde cannot disclose or suggest the combination of features recited in claim 1.

The Office Action took the position that these features are disclosed by Bobde. The Office Action states that the first entity is the “registrar or registration program (154)” and the second entity is the “presence agent.” However, as can be clearly seen from Figures 3-5, the registration program (R) 154 and the presence agent (PA) 152, are part of the same server (102, 201, and 301 respectively in Figures 3-5), and thus are in the same network entity, not in a first and a second network entities. Accordingly, it is respectfully submitted that Bobde fails to disclose or suggest what is recited in claim 1.

Claim 11 even more explicitly recites “a first network element ... and a second network element.” Thus, Bobde also fails to disclose or suggest the features of claim 11. Claims 17-18 and 34-37 each have their own scope, but each recite similar features, and, thus, are distinguishable over Bobde for similar reasons.

Wang fails to remedy the above-identified deficiencies of Bobde. Wang generally relates to a session initiation protocol (SIP) user agent in a serving GPRS support node (SGSN). More specifically, Wang discloses that a SIP application service can be connected to an SGSN by a SIP user agent. Wang discusses, in Figure 12 for example, that a mobile station can register itself to a first presence server (216), which, in turn, forwards any changes in registration to the home presence server (1206). The two presence servers, however, are operated in such a way that the presence server that is visited only passes information directly to the home presence server that then fields any request from a watching agent.

The Office Action cited Wang for other features than those discussed above, thus, it is unsurprising that Wang fails to remedy the above-identified deficiencies of Bobde with respect to claims 1, 11, 17-18, and 34-37. Accordingly, it is respectfully submitted that the combination of Bobde and Wang fails to disclose or suggest all of the elements of any of claims 1, 11, 17-18, or 34-37 and withdrawal of the rejection of those claims is respectfully requested.

Claims 2-7, 12-16, and 19-30 depend respectively from, and further limit, claims 1, 11, and 17-18. It is, therefore, respectfully submitted that each of claims 2-7, 12-16, and 19-30 recites subject matter that is neither disclosed nor suggested in the combination

of Bobde and Wang. Thus, withdrawal of the rejection of claims 2-7, 12-16, and 19-30 is respectfully requested.

Furthermore, certain embodiments of the present invention address an unidentified problem in Bobde. Because Bobde has a single network entity, both presence and registration servers run within a single server, and therefore share a proprietary location resource, which was viewed as necessary because they are run as a shared process. This sharing creates a significant increase in the loading of the shared resource especially as the presence functionality has become more important. Thus, implementations of Bobde may require significant investment in a resource capable of handling the large number of requests for presence information.

Certain embodiments of the present invention, however, advantageously overcome this problem, thereby providing a critical and unobvious advantage over the cited art. They accomplish this advantage, for example, by separating the two functions into a first network element and a second network element. Thus, they can enable the operation of a presence server without the cost of a highly complex server that has to be capable of handling a large number of requests for presence information.

This difference can be seen in the presently pending claims, such as, for example, claim 11, which recites, in part, “a first network element ... and a second network element.” For this additional reason, the presently pending claims are non-obvious over the cited art of record, and withdrawal of the obviousness rejection is respectfully requested.

The Office Action, at page 2, stated that “Bobde discloses a registration program (154) (read as first entity) and the presence agent (152) (read as second entity) are in server (102).” The Office Action noted Applicants’ previous argument noting that the registration program and presence agent cannot correspond to a first and second entity, because they are both part of the same entity. The Office Action, however, asserted that “no limitation suggests that the first and second entity must be in physically separate servers or separate locations.”

Applicants recognize that the Office Action should reflect the broadest reasonable claim interpretation, but Applicants also respectfully submit that it is legally mandatory that the claims be read in light of the specification and in light of comments made by Applicants’ representatives during prosecution. It is Applicants’ right to define the scope of the claims.

Accordingly, Applicants respectfully submit that it is not proper for the Examiner to maintain an interpretation of the claim terminology that has been properly distinguished. Additionally, each of the independent claims has been amended to make explicit that the first/second entity are separate first and second network elements.

However, it appears that the Office Action may have already acknowledged Applicants’ right to define the scope of the claims. The Office Action argued, at page 2, that “It is not novel to simply separate the presence server and the registrar server into two separate servers,” and that “none of the claimed limitations disclose that it would be advantageous to do such a separation of the two servers as argued on pgs. 18-19 [referring to pages of the response filed March 20, 2007].” Accordingly, it seems that the

Office Action correctly permitted Applicants' to be their own lexicographer and concluded that the feature of separate network elements was neither novel nor advantageous. If this is the correct understanding, Applicants thank the Examiner for following the requirements noted above, that Applicants' explanation of the claim scope is to be followed and that the claims should be read in light of the specification.

However, contrary to the Office Action's suggestion, a feature of simply separating the presence and registrar servers would be novel with respect to Bobde as cited because Bobde as cited shows both functions in a single server. Furthermore, of course, the claims are not directed solely to such a feature, and consequently the claims as a whole are patentable not only because of that feature but as a combination of various recited elements.

Additionally, while the advantages of such separated server implementations is not itself recited in the claims, there is no requirement that advantages of an invention be recited in the claims. The advantages, discovered by the inventors, of separating the registrar and presence server functionality are mentioned in the original specification at page 4, lines 19-24. Furthermore, the claims recite the separation feature both implicitly by reciting "first ... and second" and explicitly by stating the two network elements are "separated." Accordingly, the claims are both novel and non-obvious.

Furthermore, a *prima facie* rejection must address each and every feature of the claims. The feature: "sending a subscribe message for an event from the second network element to the first network element, wherein the event is a change in the registration information of at least one of the plurality of users at the first network element" is recited

in claim 1. The Office Action acknowledged that this feature was not explicitly disclosed in the cited art. The Office Action asserted that “one of the tasks of the presence agent (152) is to “generate notifications of changes” which would inherently be sent or queried to the “registrar” since that is where the user registration resides.” This assertion is incorrect. Bobde states in the immediately following sentence (from the one cited by the Office Action) that “To maintain that presence information, the server 102 includes a memory 158 for storing the data.” Since the registrar is on the same server 102 as the presence agent, any information in server 102 would ordinarily be accessible by both the presence agent and the registrar without communication between the two programs. Consequently, such a feature is not inherent, and also would be counter-intuitive for inclusion in Bobde. Such a feature only makes sense when the registrar is separate from the presence server, but in Bobde the two functionalities reside in a single server.

Accordingly, based on the Office Action’s own admissions, it is clear that the cited art fails to disclose or suggest “sending a subscribe message for an event from the second network element to the first network element, wherein the event is a change in the registration information of at least one of the plurality of users at the first network element” as recited in claim 1. Thus, a *prima facie* rejection has not been made, as a *prima facie* rejection must address each and every element of the claimed invention.

Additionally, as noted above, claim 1 recites: “maintaining, in a second network element of the communication system, information associated with said plurality of users, wherein the second network element is separate from the first network element and wherein said second network element information is dependent on the registration

information.” This feature, for which Bobde was cited in the Office Action, also clearly is neither disclosed nor suggested.

If, as noted above, the individual programs on server 102 are to be considered as separate (as apparently is the Office Action’s contention), then it should be clear no information associated with a plurality of users is maintained in the registrar in Bobde. Instead, the information associated with a plurality of users is maintained in the memory 158 for storing the data, as explained at paragraph [0028] of Bobde. Accordingly, even if the Office Action’s view of Bobde were appropriate (namely to consider the various modules of server 102 as separate), still Bobde would not disclose what is claimed, because the server 102 has one memory, and that memory is not “in” the registrar, as can be seen from, for example, Figures 3-5.

In addition, the flaw of the Office Action’s rejection can be seen in the rejection of claim 7. The rejection of claim 7 states that Wang discloses a SIP SUBSCRIBE/NOTIFY message for subscription and notification of **presence status**. Wang in paragraph [0078], however, discloses that “The presence status is stored in a centralized presence server in the home network regardless which event established the status. SIP SUBSCRIBE/NOTIFY message may be used for another part to subscribe to a subscriber’s presence status, and/or to be notified of the subscriber’s presence status from the presence server. SIP REGISTER and other possible SIP messages are suitable to report a subscriber’s presence status to the presence server.”

Recall, however, that the corresponding feature of claim 1 states: “the event is a **change in the registration information** of at least one of the plurality of users at the first

...." (emphasis added). Thus, the recited invention would not have been obvious to one of ordinary skill in the art provided with the combined disclosure of Bobde and Wang, both because Wang as cited would not provide motivation to store the information "in" the registration program, and because Wang as cited refers to notification about the wrong kind of information. Accordingly, it is respectfully requested that the rejection be withdrawn for each of the several reasons identified above.

The claimed invention is clearly novel (as admitted by the Examiner's recourse to a second reference) and is non-obvious at least because of its critical and unobvious advantages, which have not been challenged. As indicated above, there is a problem with Bobde and the prior art presence services as described on page 4 of the present specification. The effect of co-location of the register and presence server within a single device such as an S-CSCF produces an increase of the load of shared resources which are forced to handle both registrations and a large number of requests for presence information.

Separation of the presence and register service with respect to the network elements can result in a better integration with the overall network in which they operate. Furthermore, the independence of storing or maintaining registration information on a first network element and maintaining information associated with the plurality of users on a second network element independent of the first network element can enable the operator to customize the server requirements dependent on the amount of presence or registration information and thus, can enable a much more flexible approach to operation of a telecommunications network. These advantages constitute secondary considerations

of non-obviousness that would rebut a *prima facie* rejection of obviousness, even if such a rejection had been made (not admitted).

Claims 8-9 and 31-32 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bobde in view of Wang, and further in view of “IMPS – Instant Messaging and Presence using SIP” of Donovan (“Donovan”). The Office Action took the position that the combination of Bobde and Wang discloses all of the features of the claims except “wherein a third entity sends a subscribe message to the second entity for information associated with said at least one user. Applicants respectfully traverse this rejection.

Claims 8-9 and 31-32 depend respectively from, and further limit, claims 1 and 18. At least some of the deficiencies of Bobde and Wang with respect to claims 1 and 18 are discussed above. Donovan does not remedy the above-discussed deficiencies of Bobde and Wang, and, thus, the combination of Bobde, Wang, and Donovan fails to disclose or suggest all of the elements of any of the presently pending claims.

Donovan generally relates to Instant Messaging and Presence using SIP (IMPS), and was not cited with regard to the above-discussed features with respect to which the combination of Bobde and Wang is deficient. Accordingly, it is unsurprising that Donovan fails to remedy the above-identified deficiencies of Bobde and Wang. Accordingly, it is respectfully submitted that the combination of Bobde, Wang, and Donovan fails to disclose or suggest all of the elements of claims 8-9 and 31-32, and withdrawal of the rejection is respectfully requested.

Claims 10 and 33 were listed as being rejected under 35 U.S.C. 103(a) as being unpatentable over Bobde in view of Wang; however, claims 10 and 33 depend

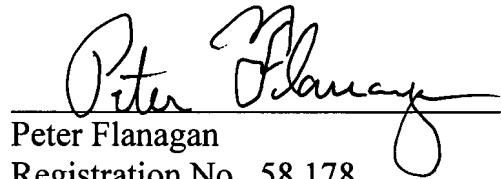
respectively from claims 8 and 31 (with respect to which the combination of Bobde and Wang is admittedly deficient according to the rejection of claims 8 and 31). Thus, this rejection is improper on its face. It is, accordingly, respectfully requested that the rejection of claims 10 and 33 be withdrawn.

For the reasons set forth above, it is respectfully submitted that each of claims 1-37 recites subject matter that is neither disclosed nor suggested in the cited art. It is, therefore, respectfully requested that all of claims 1-37 be allowed, and that this application be passed to issuance.

If, for any reason, the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,


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Enclosures: Petition for Extension of Time
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